

LIVANOVA, N.B.; LISOVSKAYA, N.P.; SILONOVA, G.V.

Study of the mechanism of activating action of adenylic acid  
on the phosphorylase B in rabbit muscles. Biokhimia 29 no.5:  
936-944 J1-Ag '64. (MIRA 18:11)

1. Institut biokhimii imeni Bakha AN SSSR, Moskva.

SILONOV, L.N.

Some tunnel diode circuits. Vych. tekhn. no.4:5-12 '62.  
(MIRA 16:6)  
(Transistor circuits) (Tunnel diodes)

SILANOV, N. I.

PA 30/49129

USSR/Electricity  
Electrical Equipment  
Turbogenerators

Oct 48

"Two Cases From Practical Operation of Electrical  
Equipment," N. I. Silonov, Engr, 1/2 p

"Elek Stants" Vol. XIX, No 10

Describes (1) breakdown due to independent excitation  
of turbogenerator, and (2) operation of generator with  
a damaged exciter.

30/49129

SITENOV, V. I.

Electric Power Stations - Sverdlovsk

Twenty-five years of the Sverdlovsk peat  
burning electric power station. Elek. sta.  
23 no. 3, 1952

SO: Monthly List of Russian Accessions, Library of Congress, July 1952 ~~x 1953~~, Uncl.

CHICHOV, V. I.

Electric Lines

Additional data on the effectiveness of  
automatic reclosing of electric lines.  
Elek. sta. 23 No. 4 (1952)

SO: Monthly List of Russian Accessions, Library of Congress, August 1952 x1253, Uncl.

SILONOV, Yu. A.

TITLE: Seminar on refractory metals, compounds, and alloys (Kiev, April 1963).

SOURCE: Atomnaya energiya, v. 15, no. 3, 1963, 266-267

ACCESSION NR: AP3008085

P. A. Nedumov, V. K. Grigorovich. Use of the tungsten resistance thermometer for contactless thermal analysis at temperatures up to 2500C.

Yu. A. Silonov. Unit for determining the evaporation rate of Ta and W on a microbalance for continuous weighing in vacuum.

V. V. Fesenko, S. P. Gordiyenko. Investigation of the composition of evaporation products by the mass-spectrometry method.

V. V. Fesenko, A. S. Bolgar. Evaporation rates and thermodynamic properties of Ti, Zr, Hf, Nb, and Ta monocarbides.

G. S. Pisarenko and others. Mechanical properties of refractory materials in the 20—3000C range.

V. I. Ivenson, D. N. Eyduk. Laws governing deformations.

L. Kh. Pivovarov, A. V. Varaksina. The effect of bonding phase

Card 8/11

SILONOVA, G.V.; LISOVSKAYA, N.P.; LIVANOVA, N.B.

Vacuum-evaporation apparatus for rapid concentration of liquids.  
Vop. med. khim. 10 no.4:434-435 Jl-Ag '64. (MIRA 18:4)

1. Institut biokhimii imeni Bakha AN SSSR, Moskva.

KODINTSOV, B.; ZAYTSOV, I.I.; SILANOVA, M.S.; TR NICH, D.P.

New standard for planning the production of foam rubber goods.  
Kauch. i rez. 23 no.438-41 Ap'64 (MIRA 1787).

1. Nauchno-issledovatel'skiy institut rezinovykh i lateksnykh izdeliy.

L 9697-66 ETT(m)/EWP(j) RM  
ACC NR. AP5026524

SOURCE CODE: UR/0286/65/000/019/0069/0069

AUTHORS: Silonova, M. S.; Trofimovich, D. P.; Peschanskaya, R. Ya.; Sydel'nant,  
N. L.; Gorelik, Ye. A.

ORG: none

TITLE: Method for obtaining sponge rubber. Class 39, No. 175220 /announced by  
Scientific Research Institute for Rubber and Latex Products (Nauchno-issledovatel'skiy  
institut rezinovykh i lateksnykh izdeliy)/

SOURCE: Byulleten' izobreteniya i tovarnykh znakov, no. 19, 1965, 69

TOPIC TAGS: rubber, sponge, gelatin, gelatinization agent, catapin, latex

ABSTRACT: This Author Certificate presents a method for obtaining sponge rubber  
from latexes, using secondary gelatinization agents. To improve the structure of  
the sponge, catapin is used as the secondary gelatinization agent.

SUB CODE: 11/

SUBM DATE: 05Mar64

UDC: 678.061-496

CC  
Card 1/1

2

TOKARZEWSKA, Maria; SILORA, Bronislaw

Redispersing co-polymers of styrene and methacrylic acid.  
Polimery tworz wielk 9 no.10:429-431 0 '64.

1. Research Laboratory of the Chemical Works, Oswiecim.

USSR/Cultivated Plants - Potatoes. Vegetables. Melons.

M

Abs Jour : Ref Zhur Biol., No 18, 1958, 82353

Author : Silorov, V.Ya.

Inst : Timiryazev Agric'l ral Akademy

Title : Theoretical Basis and Experimental Data on Heating  
Hothouses with a Steam-Air Mixture

Orig Pub : Izv. Timiryazevsk. s.-kh. akad., 1957, No 2, 111-120

Abstract : According to the data of TSKhA Vegetable Experimental  
Station, the principal advantages of hothouses heated  
with steam-air mixture are : utilization of heat waste in  
the form of steam under a pressure of 0.7-0.5 atmospheres,  
a constant moistening of the soil, assurance of a uniform  
heating within each hothouse and the low temperature of  
the heating pipes ( $50-57^{\circ}$ ). -- M.N. Myazdrikova

Card 1/1

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"APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R001550610019-3

"Integral Curves of a Nonlinear Equation of First Order", Math., Heft 1,  
193-203. (1950).

APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R001550610019-3"

Slob G.E.

Slob, G. E. On a theorem of L. M. Gel'fand and its generalizations. Doklady Akad. Nauk SSSR (N.S.) 72, 641-644 (1950). (Russian)

Let  $y$  be a generalized nilpotent element in a normed ring  $R$  with identity element  $e$  and let  $x=e-y$ ,  $\alpha_n=\|x^n\|$ . Gelfand [Rec. Math. [Mat. Sbornik] N.S. 9(51), 49-50 (1941); these Rev. 3, 36] proved that, if  $\alpha_n=O(1)$  for  $n=0, \pm 1, \pm 2, \dots$ , then  $y=0$ . Hille [Proc. Nat. Acad. Sci. U. S. A. 30, 58-60 (1944); these Rev. 5, 39] improved this result by replacing  $O(1)$  by  $o(1)$ . Stone [J. Indian Math. Soc. (N.S.) 12, 1-7 (1948); these Rev. 10, 308] extended the result further by showing that a necessary and sufficient condition for  $y^{n+1}=0$  (resp.  $y^n=0$ ) is that  $\alpha_n=O(|n|^N)$  (resp.  $\alpha_n=o(|n|^N)$ ). In the present note the author observes that the above results are contained in the following theorem of Gelfand [Rec. Math. [Mat. Sbornik] N.S. 9(51), 41-48 (1941); these Rev. 3, 52]. Let  $R_0$  be a normed ring generated by  $x$  and  $x^{-1}$ , and for  $\alpha_n=\|x^n\|$  assume

$$(1) \quad \lim_{r \rightarrow 1^-} (1-r)^k \sum_{n=0}^{\infty} \alpha_n r^n = 0, \quad \lim_{r \rightarrow 1^-} (1-r)^k \sum_{n=0}^{\infty} \alpha_{-n} r^n = 0.$$

Then each maximal ideal  $M_0 \subset R_0$  contains at most  $k-1$

Source: Mathematical Reviews,

Vol. 12, No. 2.

distinct primary ideals  $I_1, \dots, I_{k-1}$ , where  $I_j$  is generated by  $(x-x(M_0)e)^j$ . Moreover, the element  $(x-x(M_0)e)^{k-1}$  is contained in every primary ideal of  $R_0$ . [This last statement is only implicit in Gelfand's paper.] As an illustration consider the case discussed by Stone and let  $R_0$  be the ring generated by  $(e-x)^{\pm 1}$ . Then  $\alpha_n=O(|n|^N)$  implies condition (1) for  $k=N+2$ . Furthermore,  $R_0$  has a unique maximal ideal  $M_0$ ,  $x(M_0)=1$ , and the zero ideal is primary in  $R_0$ . It follows from the last statement of the Gelfand theorem that  $y^{N+1}=0$ . The case  $\alpha_n=o(|n|^N)$  is handled similarly. The paper also contains an example to show that the condition  $\alpha_n=O(1)$  for positive  $n$  is not sufficient for the first Gelfand result. C. E. Rickart (New Haven, Conn.).

*Slob G.E.*

Mathematical Reviews  
 Vol. 14 No. 9  
 October 1953  
 Analysis

7-13-54  
 LL

SIDOV, W. N. On majorants of functions with uniform convergence. Ukrain. Mat. Zurnal 3, 404-411 (1951). (Russian)

The author first establishes a simple generalization of the complex form of the Stone-Weierstrass theorem [M. H. Stone, Math. Mag. 21, 167-184, 237-254 (1948); these Rev. 10, 255], as follows. Let  $C(G)$  be the (complex) Banach algebra of all continuous complex-valued functions on the compact Hausdorff space  $G$ , with the usual algebraic operations and norm. Let  $L$  be a closed subalgebra of  $C(G)$  containing all constants. Let  $A$  be a closed subalgebra of  $L$  such that  $x \in A$  implies  $\bar{x} \in A$ . The equivalence relation  $\sim$  on  $G$  such that  $t_1 \sim t_2$  if and only if  $f(t_1) = f(t_2)$  for all  $f \in A$  obviously dissects  $G$  into disjoint closed sets  $r$ . For every such  $r$ , let  $J(r)$  be the ideal in  $L$  of all functions in  $L$  which vanish on  $r$ . There is an obvious and natural isomorphism carrying the difference algebra  $L - J(r)$  onto an algebra of functions defined on  $r$ . The generalized Stone-Weierstrass theorem asserts that if  $f \in C(G)$  and if  $f$  agrees on every  $r$  with a function in  $L - J(r)$ , then  $f \in L$ . For  $L = A = C(G)$ , this is exactly the Stone-Weierstrass theorem. The theorem is applied to prove the following result. Let  $C$  be the algebra  $C(|z| \leq 1)$  and  $A$  the closed subalgebra of  $C$  consisting of the functions which are analytic on  $|z| < 1$ . Let  $(A, \Sigma)$  be the smallest closed subalgebra of  $C$  containing  $A$  and the real functions  $f \in \Sigma$ . A closed subset  $S$  of  $|z| \leq 1$  is said to be admissible if  $S$  has void interior and if for all  $z_0$  non- $\epsilon S$ ,  $|z_0| < 1$ , there is a continuous curve running from  $z_0$  to  $|z| = 1$  which does not intersect  $S$ . Then it is proved that  $(A, \Sigma) = C$  if and only if all sets of points equivalent under the set of functions  $\Sigma$  are admissible. This generalizes a theorem attributed to Hurwitz [Moskov. Gos. Univ. Učenye Zapiski 145, Ser. Mat. 3 (1949) (unavailable)].

Silov, G. E. Homogeneous rings of functions. Uspeni Matem. Nauk. (N.S.) 6, no. 1(41), 91-137 (1951).  
(Russian)

The present paper presents another chapter in the already extensive theory of commutative Banach algebras. The paper is divided into six §§, whose contents may be summarized as follows. In §1, certain essential preliminaries are described. Let  $G$  be a compact Abelian group, written additively, and let  $L$  be a complex Banach space (which may be a commutative Banach algebra or the complex number field), with norm denoted by  $\|\cdot\|$ . Consider a complex linear space  $R$  of  $L$ -valued continuous functions on  $G$ , addition and scalar multiplication being defined pointwise. Suppose that  $R$  admits a norm  $\|\cdot\|$  which need have no connection with the norm  $\|\cdot\|$ . Suppose further that for  $f(t) \in R$  and  $n \in \mathbb{Z}$ , the translate  $f(t+n)$  belongs to  $R$ , and that for all  $f \in G$ , there exists a constant  $C_1 > 0$  such that  $\|f(t+h)\| \leq C_1 \|f(t)\|$  for all  $t \in R$ . Such a space of  $L$ -valued functions is called a homogeneous space of functions. If convergence in the norm  $\|\cdot\|$  of a sequence  $f_k(t)$  implies the convergence in  $\|\cdot\|$  or  $\|\cdot\|_{L^1}$  of  $\int f_k(t) dt$  for each fixed  $t \in G$ , then the operator  $f(t) \mapsto f(t+h)$  is necessarily bounded. A function  $f(t) \in R$  is translation-continuous if for every  $\epsilon > 0$ , there exists a neighborhood  $U(0)$  in  $G$  such that  $\int_U f(t) dt = \int_U f(0) dt \leq \epsilon$ . The author first proves that every homogeneous space of functions  $R$  which contains a dense set of translation-continuous elements must consist entirely of translation-continuous functions.

(a) and (b) admit a norm  $\|\cdot\|$  equivalent to  $\|\cdot\|$  for which  $\|f(t+h)\| = \|f(t)\|$  for all  $t \in G$ . For the case  $L = \mathbb{C}$  the complex numbers and  $R$  containing a dense set of continuous characters (which are obviously translation-continuous), assertions (a) and (b) apply.

In §2, a homogeneous space  $R$  of  $L$ -valued functions is considered which satisfies (a) and (b) of the preceding paragraph. The  $L$ -valued integral  $\int f(t) dt$  (as representing Haar measure on  $G$ ) exists, in any of a number of senses, for all  $f \in R$ . Let  $X = \{x_\alpha\}$  be the character group of  $G$ . The  $\alpha$ th Fourier coefficient  $C_\alpha(f)$  of  $f \in R$  is defined as  $\int f(t) \overline{x_\alpha(t)} dt$ , and is an element of  $L$ . It is proved that  $C_\alpha(f) \in \ell^1(R)$ . A brief proof is given for the theorem of Bochner and von Neumann generalizing Fejér's theorem on trigonometric series [Trans. Amer. Math. Soc. 37, 21-50 (1935)], which shows how  $f(t)$  can be reconstructed from the elements  $C_\alpha(f)$  and the characters  $x_\alpha(t)$ . A corollary is that  $C_\alpha(f) = 0$  for all  $\alpha$  implies  $f = 0$ . Also, the Riemann-Lebesgue lemma is generalized by showing that for every  $\epsilon > 0$ , only a finite number of the elements  $C_\alpha(f)$  have norms exceeding  $\epsilon$ .

The contents of §3 are taken in toto from an earlier

treasure by the author [Trudy Mat. Inst. Steklov 21 (1947); these Rev. 9, 596], to the review of which we refer for terminology not explained here.

Vol. 13 No. 2

*S. S. LIOV, G. E.*  
 J. L. LERFALD, N. N., and LIOV, G. E. On a new method in  
uniqueness theorems for solution of Cauchy's problem  
for systems linear partial differential equations. Dokl.  
 Akad. Nauk SSSR (N.S.) 102 (1955), 1055-1058.  
 (Russian)

*fAS* T-2/W

Préliminaires: soit  $S(\alpha, \beta; A, B)$  l'espace des fonctions  $\varphi$  indéfiniment différentiables sur  $R$  ( $\alpha, \beta, A, B$  positifs) telles que pour tout  $\varepsilon, \delta > 0$ , il existe  $N_{\varepsilon, \delta}(\varphi) < \infty$  avec

$$|x^k \varphi^{(p)}(x)| \leq N_{\varepsilon, \delta}(\varphi)(A + \delta)^k k! \varepsilon^k (B + \varepsilon)^p p! n^{\delta},$$

pour tout  $x, k$  et  $n$ ; topologie naturelle. Lemme: soit  $f(s) = \sum_{n \geq 0} a_n s^n$ , une fonction entière d'ordre  $\leq 1/\beta$ , de type  $\leq \beta/B^{1/q} s^q$ ; alors l'opérateur différentiel infini  $f(D)$ ,  $D = d/dx$ , est un opérateur linéaire continu de  $S(\alpha, \beta; A, B)$  dans  $S(\alpha, \beta; A, Bc^\delta)$ . Généralisation des espaces et du lemme à  $N$  variables.

Application: on considère le problème de Cauchy pour le système d'évolution

$$(*) \quad \frac{dx}{dt} = P\left(\frac{1}{i} \frac{\partial}{\partial x}, t\right),$$

$P$  étant une matrice carrée  $(m, m)$ , dont les coefficients sont des opérateurs différentiels linéaires d'ordre  $q$  sur  $R^m$ ,  $x \in R^m$ , à coefficients indépendants de  $x$ , continus en  $t$ . On associe à (\*) le système  $d/dt = P(s, t)$ , de matrice fon-

2/2

damentale  $\mathcal{Q}(s, t_0, t)$ , fonction entière de  $s$ , d'ordre  $q_0 \leq q$  [cf. Gel'fand et Silov, Uspehi Mat. Nauk (N.S.) 8 (1953), no. 6 (58), 3-54; MR 15, 867]. Le lemme (dans  $R^N$ ) et les raisonnements usuels [Schwartz, Ann. Inst. Fourier, Grenoble 2 (1951), 19-49; MR 13, 242] donnent l'existence et l'unicité du problème de Cauchy dans le dual de  $S_\alpha^\beta = \mathcal{U}_{A,B} S(\alpha, \beta; A, B)$  ( $\alpha \geq 1 - 1/q_0$ ). J. L. Lions.

*Revi*

SILOV G.E.

1-FW

Silov, G. E. On a Phragmen-Lindelöf type theorem for a system of linear partial differential equations. Trudy Moskov. Mat. Obšč. 5 (1956), 353-366. (Russian)

Considérons le système d'équations linéaires aux dérivées partielles:

$$(I) \quad \frac{\partial u(x, t)}{\partial t} = P\left(\frac{1}{2\pi i} - \frac{\partial}{\partial x}\right) u(x, t),$$

où  $x = \{x_1, x_2, \dots, x_N\}$  est un point de l'espace  $R_N$ ,  $u(x, t) = \{u_1(x, t), \dots, u_m(x, t)\}$  une fonction (complexe) inconnue, à valeurs dans un espace vectoriel,  $P$  une matrice ( $m$  lignes,  $n$  colonnes) dont les éléments sont des polynômes par rapport aux opérateurs  $(2\pi i)^{-1} \partial / \partial x_j$  avec des coefficients constants. L'auteur démontre le théorème suivant: Si pour tout  $s = (s_1, s_2, \dots, s_N)$  les racines caractéristiques de  $P(s)$  sont réelles, toute solution du système (I) satisfaisant aux conditions:  $|u(x, t)| \leq C e^{(1+|t|)s}$ ,  $\gamma < 1$ ;  $|u(x, 0)| \leq C(1 + |x|)^q$  ( $q$  entier non négatif) est de la forme  $u(x, t) = \sum_{k=0}^r u^{(k)}(x) t^k$  ( $r \leq q + \lfloor N \rfloor + m + 1$ ) où les

des équations

$$P\left(\frac{1}{2\pi i} \frac{\partial}{\partial x}\right) u^{(r)}(x) = 0,$$

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S. Z. L. D. V., G. E.

G1

1 FW

Dans le cas particulier simple ( $N=1, m=1$ )

$$\frac{\partial u(x, t)}{\partial t} = i \frac{\partial u(x, t)}{\partial x}$$

on obtient un résultat sur les fonctions analytiques qui résulte aussi du théorème classique de Phragmen-Lindelöf. Le résultat ainsi obtenu est assez près du meilleur résultat possible (où  $\epsilon|x|$  remplace  $A|x|^y$ ,  $y < 1$ , dans l'hypothèse).  
S. Mandelbrojt (Paris).

2/1  
2/2

8/1  
MT

SILOV, G. E.

"Correct problems for lenear constant coefficient partial  
differential equations in the real half-space."  
To be presented at the IMU International Congress of  
Mathematicians 1962 - Stockholm, Sweden, 15-22 Aug 62

(Current position not known to this office; in 1955 he  
was a co-author with GEL'FAND who was at the Insti. of  
Mathematics, Moscow State University)

SILIOVA, R.G.; KUCHEROWA, G.S.; POPOVA, A.M., starshiy tekhnik; MECHIK,  
N.A., radiomekhanik, rukovoditel' brigady kommunisticheskogo  
truda; GULUBKOV, N.I., nadzorotrshchik, udarnik kommunisticheskogo  
truda; MAROVICH, A.V., rukovoditel' brigady kommunisticheskogo  
truda.

Leading workers and innovators share their experiences with  
communications workers. Vest. sviazi 20 no.8:15-17 Ag'60.  
(MIRA 13:10)

1. Rukovoditel' telegrafistov sluzhby gorodskikh telegrafnykh  
svyazey TSentral'nogo telegrafa SSSR (for Silova). 2. Pomo-  
shchik nachal'nika 245-go otdeleniya svyazi g. Moskvy (for  
Kucherova). 3. Moskovskaya gorodskaya telefonnaya set'  
(for Popova). 4. Televizionnoye atel'y'e No.38 (for Mechnik).  
5. Moskovskaya gorodskaya radiotranslyatsionnaya set'.  
6. Nachal'nik pochтового vagona Otdeleniya  
perevozki pochty na Kurskom vokzale v Moskve (for Marovich).  
(Telecommunication--Employee)

Silova, T. A.

Izhevsk, V. N. and Silova, T. A. - "Inoculating grasses with germinating  
seeds," Uchen. zapiski (Nauk. os. poch. in-t), Issue 7, 1947, p. 133-36.

SO: 6-1731, 21 Ma. 63, (Letopis 'Zhurnal 'nykh Statey, No. 17, 1949).

SILOVIC, S., prof. inz.

Economic problems of our shipbuilding and shipping, reported to the  
consultative conference of Yugoslav economists. Brodogradnja 5  
no.4:155-167 '54

SJLOVIC, S., prof. inz.

Technique of testing ship models. Brodogradnja 5 no.5:207-214 '54.

"APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R001550610019-3

SILJVIC, Stanko, prof. ing.

Economic speeds of merchant ships. Brodogradnja 6 no.4:145-154 '55.

APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R001550610019-3"

SILOVIC, Starko, prof. inz.

Modern machinery for merchant ships. Brodogradnja 7 no.3:97-106  
'56.

SILOVIC, S., prof., inz.

Computing data for the diagrams in the initial stage of  
ship designing and projecting. Brodogradnja 8 no.2:59-64  
'57.

SILOVIC, S., prof. Inz.

On some problems of modern shipbuilding. A lecture held  
to the students of the Faculty of Shipbuilding and Ship-Machinery  
Construction in April 1957. Brodogradnja 8 no.3:85-95 '57.

SILOVIC, Stanko, prof., ing.

International conference on the safety of life at sea, 1960. Brodogradnja  
12 no.4:129-132 '61.

1. Odgovorni urednik, "Brodogradnja".

SILOVIC, S., prof. inz.

Some problems of the postwar studies of shipbuilding at the Technical Faculty of Zagreb. Bodogradnja 5 no.6:284-290 '54.

SILOVIC, Stanko, prof. inz.

On some problems of resistance and propulsion. On ~~the~~ occasion of the  
50th. anniversary of the William Froude method. Brodogradnja 6 no.3:97-  
102 '55.

SILVIC, S., prof. ir. s.; FRANCIC, M., inz.

Measurements on the motor ship "Rijeka," and endeavors toward their practical application. Brodogradnja 7 no.1:1-23 '56.

SID WY, S.A. [name], Inc. [translator]

Determining the weight of steel in hulls. (To be contd.) Brodogradnja  
7 no.1 36-41 '96.

SILOVIC, S., prof. inz. [translator]

Determining the weight of steel in hulls, (Conclusion). Brodogradnja  
7 no.2:49-58 '56.

SILOVIC, S., prof. inz.; FALCEV, N., inz.

The screw as instrument for the determination of propulsion data.  
Brodogradnja 6 no.6:241-253 '66.

SILOVIC, Stanko, prof. inz.

New less expensive methods of cargo handling. Brodogradnja  
14 no.1:16-22 '64

1. Odgovorni urednik, "Brodogradnja".

SILovsky, Karel, inz.

Problem of stress in overlapping joints. Zvar sbor 10 no.2:  
235-241 '61.

1. Slovenska vysoka skola technicka, Bratislava.

MANKA, T., inz.; SILOVSKY, K., inz.; TESAR, S., inz.

Design of the basic equipment for production of the VUS-62  
prestressed railroad sleepers. Inz stavby 11 no.6:218-223  
Je '63.

1. Vyskumny ustav stavebnictva, Bratislava (for Manka). 2. Katedra  
pruznosti a pevnosti, Slovenska vysoka skola technicka, Bratislava  
(for Silovsky and Tesar).

SILOVSKY, Karel, inz.

Operational safety of a cast-iron mould for production of  
prestressed concrete railroad sleepers. Stroj cas 12  
no. 6:355-359 '61.

1. Katedra pruznosti a pevnosti Slovenskej vysokej skoly  
technickej, Bratislava.

PA 35/49T67

## USSR/Metals

Copper

Corrosion

Dec 48

"Anthraquinone Protection of Copper From Corrosion by Sulfur Solutions," L. G. Gindin, R. Kh. Sil's, All-Union Inst Avn Materials, 4 pp

"Dok Ak Nauk SSSR" Vol LXIII, No 6

Show's that anthraquinone lengthens period of "in-cubation," which precedes beginning of corrosion, by 500,000 times. Table shows effect of anthraquinone on corrosion of copper by sulfur solutions. Decides that anthraquinone cannot properly be called an inhibitor, or its effect be called inhibition since it

35/49T67

USER/Metals (Contd)

Dec 48

does not slow the reaction but rather moves back its beginning, or "immunizes" the metal. Submitted by Acad A. N. Frumkin, 3 Nov 48.

35/49T67

SIL'S, R. KH.

SIL'S, A.EV.

RAMAYYA, K.S., doktor tekhnicheskikh nauk; SIL'S, R.Ih., inzhener; BEN-YAKIR, R.D., inzhener; KOZLOVSKIY, I.S., kandidat tekhnicheskikh nauk, zamestitel' otvetsvtennogo redaktora; ZIL'PERBERG, Ya.G., inzhener, sekretar'; BRILING, N.R., professor, doktor tekhnicheskikh nauk; KALISH, G.G., professor, doktor tekhnicheskikh nauk; PRVZNER, Ya.M., professor, doktor tekhnicheskikh nauk; KHRUSHCHEV, M.M., professor, doktor tekhnicheskikh nauk; LIPGART, A.A.; professor; PRYADILOV, V.I., kandidat tekhnicheskikh nauk; ROZANOV, V.S., kandidat tekhnicheskikh nauk; CHISTOZVONOV, S.B., inzhener; BROKSH, V.V., zavedyuyshchiy redaktsiyey, inzhener; UVAROVA, A.F., tekhnicheskiy redaktor; OSIPYAN, A.F., kandidat tekhnicheskikh nauk, otvetsvtennyy redaktor.

[Method of determining the potential corrosion properties of lubricants] Metod opredeleniya potentsial'noi korrozionnosti masel. Moscow, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry.1956 49 p. (Moscow. Gosudarstvennyi nauchno-issledovatel'skii avtomobil'nyi i avtomotornyi institut. [Trudy], no. 80) (MLRA 10:1)

1. Direktor Nauchno-issledovatel'skogo avtomotornogo instituta (for Osipyan). 2.Zamestitel' direktora Nauchno-issledovatel'skogo avtomotornogo instituta po nauchnoj rabote (for Kozlovskiy).3.Chlen-korrespondent Akademii nauk SSSR (for Briling).  
(Lubrication and lubricants) (Corrosion and anticorrosives)

PAGE 2 RDP86-00513

UV-255

A. S.

Sovietika

Copyr. sch: Amerika Sv. Ministr. Ad.

Vsesoyuznaya konferentsiya po trantyu i iznosu v mashinakh. Ad. 1958.

Otdel dinamicheskaya teoriya svertkivaniya. Opyry sch: Amerika Sv. Ministr. Ad. 1958.

Otdel dinamicheskaya teoriya svertkivaniya (Hydrodynamic Theory of Lubrication, Lubricating Materials and Lubricant Materials). Moscow, 1958.

Slip Bearings. Lubrication and Lubricant Materials. Moscow, 1958.

Izdat. AN SSSR. 422 p. Series 319 Inserted.

Printed. (Series) Its: Trudy. v. 1)

Institut mashinovedeniya, Akademii Nauk SSSR. Institut mashinovedeniya, Sponzoring Agency: Academii Nauk SSSR. Institut mashinovedeniya, Theory of Lubrication and Slip Bearings. Ye. M. Goryainov, Professor, Doctor of Technical Sciences; Ye. M. Goryainov, Professor, Doctor of Technical Sciences; and A. K. Dyachkov, Professor, Doctor of Technical Sciences (Goryainov po trantyu i iznosu v mashinakh) Vsesoyuznaya konferentsiya po trantyu i iznosu v mashinakh. Third All-Union Conference on Friction and Wear in Machines, Lubricant Materials. G. V. Vinogradov, Professor, Doctor of Chemical Sciences; Ed. of Publishing House: M. Ya. Klebanov; Tech. Ed.: O. M. Oss'evskiy.

PURPOSE: This collection of articles is intended for practicing engineers and research scientists.

CONTENTS: The collection, published by the Institute of Machine Engineering, Academy of Sciences of the USSR (Institute of Science of Machine Engineering), contains papers presented at the Vsesoyuznaya konferentsiya po trantyu i iznosu v mashinakh (Vsesoyuznaya konferentsiya po trantyu i iznosu v mashinakh) Vsesoyuznaya konferentsiya po trantyu i iznosu v mashinakh (Vsesoyuznaya konferentsiya po trantyu i iznosu v mashinakh) which was held April 9-15, 1958. Problems discussed were in hydrodynamic theory (cont.).

Polyakov, A. M. Results of the Work of the Arktik MP Tsernopol'skhan Scientific Research Institute of the Petroleum Industry in the Field of Synthetic Lubricants. Investigation, and Application of Additives to Lubricating Oils 366

Puchkov, M. G., M. S. Borovaya, and V. D. Reznikov. Change in the Chemical Composition and in the Operating Properties of Oils During Use in an Engine 371

Razumov, R. S., and D. P. Fil'atov. Mechanism of the Corrosive Activity of Oils and the Protective Action 381

Pukash, N. Ye., daid'kova, P. Ya. Kir'yushin, A. S. Rukashyn, and I. N. Gas. On the Applicability of Synthetic Esters as Lubricant Materials 386

Pukash, G. I., and M. L. Kaverina. Lubricating Capacity and Properties of the Boundary Layer of Oil (Impact Strength, Resistance and Characteristics of the Lubricating Capacity of Oils) 397

Mil'son, F. V., and S. P. Zarechnyy. Mechanical Properties of Solutions of Polyisobutylene in Mineral Oil (Published in 1959 under the title "Mechanical Properties of Solutions of Polyisobutylene in Mineral Oil") (Khimiya i Tekhnologiya topliv i naft). No. 2, 1959 403

Pavlov, V. P. Elastic-Endurance Properties of Lubricant Materials (Izv. AN SSSR, OTN. Mekhanika i mashinostroyeniya. No. 2, 1959) 408

Pitranova, Ye. M., and S. G. Arabyan. Development of an Improved Engine Method for Testing Oils for Diesel Engines (Territoriya i sel'mozaashchiy. No. 9, 1958) 408

57/213 R.R.

IV 300

66550

SOV/CI-50-1, p.3/65

Publication Ref.: Vestn. Neftegaz. zhurnala, Thirteenth, 1970, No. 5, p. 256 (USSR)

Author(s): Rumyantsev, I. V., Sill'ia, R. Kh.

Title: A Method for Determining the Potential Corrosion Aggressiveness of Oil

Abstract: Metod opredeleniya korroziy i metallov (Vses. Sov. nauchno-tekhn. o-va, Nr. 1) - Ussr, 1956, pp. 61 - 65

Abstract: A new device MK-2 NAMEI has been proposed for determining the corrosion aggressiveness under the conditions of its oxidation. The crater of oil is placed into an L-shaped retort and a round metal plate (disk) is also placed there. It is fastened on the tubular foot of glass bulb which is inserted into the retort. The retort receives a variable inclination by means of an adapter of the revolving type. The disk revolves around an inclined axis. As a result the disk is uniformly treated by oil and air. A stirrer for mixing the liquid in the thermostat revolves separately from the crater or together with it. The temperature in the thermostat is regulated by a thermoregulator (thermocouple). In this case a free access of air into the crater is guaranteed. The criterium of the aggressiveness of the oil is ensured.

66559

30% / 100 - 300 / 5

6. The following is the proposed criterion for preservation of oil:

6.1. The following are the detailed conditions of the tests: Inclination of the dish  $\pm 10^\circ$ ; temperature of the dish  $\pm 1^\circ$  from the better of the report;  $\pm 1^\circ$ ; temperature of the bath  $\pm 0.5^\circ$ ; surface of the dish  $\pm 0.2$  cm<sup>2</sup>; quantity of oil  $\pm 0.5$  ml; time of exposure  $\pm 1$  hour; rate of corrosion is 1-5 times faster than by the method of the U.S. Bureau of Mines; the results of the tests in institutes successfully and have been published; the results of the tests in institutes are correct and differentiated by the type of oil; the results are correct and differentiated by the origin of the oil; the results are correct and differentiated by the type of various oils; the test duration of 1 hour has been standardized.

J. M. St. X

S/081/62/000/004/069/087  
B138/B110

AUTHORS: Semenido, Ye. G., Ramayya, K. S., Sharapov, V. I.,  
Sil's, R. Kh., Shchegolev, N. V.

TITLE: Low-viscosity fractions of sulfurous crudes as a base for  
thickened oils

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 4, 1962, 482, abstract  
4M179 (Sb. "Khimiya seraorgan. soyedineniy,  
soderzhashchikhsya v neftyakh i nefteproduktakh. v. 4", M.,  
Gostoptekhizdat, 1961, 217-221)

TEXT: With the aim of selecting bases for the production of thickened oils  
investigation has been made of the sulfur base of the Novo-Ufimka NPZ  
fractions which boil in the ranges 325-350°C, 325-375°C, 325-400°C and  
325-425°C. The sulfurous base investigated, which has a total S content of  
up to 1 %, has been found to have better viscosity properties, group  
chemical composition, antioxidation properties etc. than the oil base used  
in Baku production. For this reason the sulfurous base of the Novo-Ufimka  
NPZ is recommended for the production of thickened oils which might then under-  
go motor trials. [Abstracter's note: Complete translation.]

Card 1/1

20

25

30

30415  
S/061/62/000/006/085/117  
B167/B101

11.9700

AUTHORS: Ramayya, K. S., Sil's, R. Kh.

TITLE: Effect of an oxidation catalyst in oil on the anti-corrosion efficiency of additives containing various functional groups

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 6, 1962, 540-541, abstract 6M258 (Sb. "Prisadki k maslам i toplivam". M., Gostoptekhizdat, 1961, 223-227)

TEXT: Oil oxidation experiments were carried out on a K-2 (DK-2) apparatus of NAMI at 140°C over a period of 25 hours, with standard lead plates whose weight loss was intermittently determined. Oils from the following sources were studied: sulfur naphthas containing natural oxidation inhibitors, oils from Baku petroleum free from natural inhibitors, and also the same oils in the presence of oxidation catalysts (OC) (Cu stearate, Fe oleate, Cu stearate + Fe oleate, Co naphthenate, Cu stearate + Co naphthenate, at the 0.02% level), with or without additives of various kinds. The Cu, Fe, and Co salts investigated

Card 1/2

X

S/081/62/000/006/085/117

B167/B101

Effect of an oxidation catalyst in oil ...

accelerate the corrosion of Pb during the oxidation of oils derived from sulfur-containing petroleum to approximately the value given by oils from Baku petroleum. Additives containing a sulfurized petroleum product (3% Aznii-5) or disulfide compounds (3% Tsiatim-339, 3% Aznii-7) as corrosion inhibitors cease to protect Pb from corrosion if an OC is present. Additives containing the thiophosphoric group (3 and 5% DF-1, DF-1), 3% Bartiol, 0.7% Lyubrizol-1060, 3% Zintiol, 2% DF-11 (DF-11), 5% Gintset, 1% VNii NP-354) effectively protected Pb from corrosion for long periods of time whether or not any OC was present. Alkaline additives (1% VNii NP-350, 1.5% DF-3 (SB-3) on the basis of ash) inhibited the corrosion of lead for a considerable time in the absence of OC, but in the presence of OC the protection was short-lived and was followed by a more vigorous attack than took place in additive-free oil.

[Abstracter's note: Complete translation.]

Card 2/2

S/081/62/000/005/081/112  
B162/B101

11 9700

AUTHORS:

Ramayya, K. S., Borovaya, M. S., Sil's, R. Kh.

TITLE:

Laboratory investigation of the antioxidantizing efficiency of additives to motor oils

PERIODICAL:

Referativnyy zhurnal. Khimiya, no. 5, 1962, 528,  
abstract 5214 (Sb. "Prisadki k maslам i toplivam".  
M., Gostoptekhizdat, 1961, 269-272)

TEXT: The results are compared of three methods of oxidation of D-11 oil without any additive and with each of the following additives: Tsiatim-339, 3%, Tsiatim-339 alkaline, 3%, Bartiol, 3%, Bartiol alkaline, 3%. Gintset, 5%. Oxidation methods: revised Aznii method at 200°C by absorption of O<sub>2</sub> to 5ml/g of oil, NAMI method (in -2 (DK-2) device) at 200°C for 50 hrs and thermooxidizing stability 9352-60 (GOST 9352-60) at 250°C. With the NAMI method (the criterion is the quantity of sediment in the oxidized oil) the additives Tsiatim-339, Bartiol, and Gintset were

Card 1/2

Laboratory investigation ...

S/081/62/000/005/081/112  
B162/B101

prooxidants, Tsiatim-339 alkaline was antioxidant, and Bartiol alkaline did not change the quantity of sediment in the oxidized oil. The evaluation of the action of the additives by the Aznii method was practically the same as by the NAMI method. With the thermooxidizing stability method, an opposite evaluation to that of the first two methods was obtained, namely: all additives were antioxidants, the presence of excess alkalinity in the Tsiatim-339 and Bartiol additives causing a reduction in the antioxidant efficiency of the additives. The opposite evaluation of the action of the additives by the last method is explained by the authors as due to the fact that with this method the oxidation of the oil takes place in a thin layer, result of which the oxidation products formed in the oil volatilize, while in the case of oxidation in the oil (the first two methods) these products undergo condensation and polymerization with the formation of a sediment which is insoluble in light gasoline. [Abstracter's note: Complete translation.]

Card 2/2

L 25658-65 ENT(m)/EPF(c)/EWA(d)/T/EWP(t)/EWP(b) Pr-4 JD/WB/DJ

ACCESSION NR: AR4048478 S/0081/64/000/013/P033/P033 29

SOURCE: Ref. zh. Khimiya, Abs. 13P240 21

AUTHOR: Ramayya, K. S.; Sil's, R. Kh. B

TITLE: The corrosiveness of motor oils //

CITED SOURCE: Tr. Tsentr. n.-i. avtomob. i avtomotorn. in-ta, vy p. 60, 1963,  
10-29

TOPIC TAGS: motor oil, lubricating oil, oil additive, oil corrosiveness, oil stability, oil oxidation, lead corrosion, corrosion testing, oxidation catalyst, copper naphthenate, sulfonate additive

TRANSLATION: The authors demonstrate that the NAMI method (GOST 8245-56) for determining the corrosiveness of motor oils for lead (at 140°C for 10 hours), in which no oxidation catalyst is used, is insufficient to characterize the behavior of the new additive-containing oils during use. They investigated the effect of the addition of various concentrations of an oxidation catalyst (copper naphthenate) on the corrosiveness of motor oils with additives of the inhibitory and alkaline types, and found that a determination of the corrosiveness of oil by the NAMI

Card 1/2

L 25658-65

ACCESSION NR: AR4048478

2

method (at 140C) but in the presence of 0.02% copper naphthenate (2 mg Cu/100 g oil) and for 25 hours gave a better indication as to the corrosive behavior of the oil in motors and the effect of additives than provided by the standard NAMI method; at the same time, it made possible an evaluation of the stability of the oil to oxidation. A determination of the corrosiveness of DS-11 oil with various additives by the modified NAMI method gave the following results (name of the additive followed by the weight loss of lead in g/m<sup>2</sup>): no additive, 210; 3.5% TsIATIM-339, 190; 6% VNII NP-185; 6.5% SB-3 (concentrate of basic barium sulfonate) 138; 10% NSK (concentrate of neutral calcium sulfonate), 120; 10% NSK plus 1.5% DF-1, 110; 6.5% SB-3 plus 3.5% AN-22, 0.8; 10% SB-3 plus 1% AN-22, 33; 6.5% SB-3 plus 3.5% DF-1, 0; 10% VNII NP-370, 3; 10% PMS plus 1.5% DF-1, 1; compositions of imported additives varying in class from "premium" to series III, 0-4.5; compositions of Soviet additives varying in class from A to E, 0-4. The authors recommend the use of the modified NAMI method for characterizing the corrosiveness and stability of motor oils (with additives) manufactured according to the international classification. A. Ravikovich.

SUB CODE: FP, MM

ENCL: 00

Card 2/2

L 25618-65 EPF(c)/EWT(m)/T Pr-4 DJ  
ACCESSION NR: AR4048479

5/0081/64/000/013/P033/P034

24  
17  
B

SOURCE: Ref. zh. Khimiya, Abs. 13P243

AUTHOR: Ramayya, K. S.; Sil's, R. Kh.; Krivoruchenko, N. T.; Bykovskaya, G. A.

TITLE: Resin formation // and increase in viscosity of motor oils during their oxidation //

CITED SOURCE: Tr. Tsentr. n.-i. avtomob. i avtomotorn. in-ta, vy p. 60, 1963,  
59-66

TOPIC TAGS: motor oil, lubricating oil, oil viscosity, oil oxidation, resin formation, precipitate formation, oil additive, thiophosphate additive

TRANSLATION: Oils were oxidized in the DK-2 device by the NAMI method at 200C for periods up to 70 hours. The oxidized oil was diluted with petroleum ether and the precipitate formed was filtered off. From part of the filtrate, the resins were isolated by adsorption on silica gel, while from the remainder of the filtrate, an oil was obtained which contained resins but did not contain precipitate. From the viscosity ( $v_r$ ) of the oxidized oil which contained resins but did not contain precipitate and the viscosity ( $v_0$ ) of the same oil following

Card 1/2

L 25618-65

ACCESSION NR: AR4048479

removal of the resins, the authors calculated the specific viscosity as the ratio  $(v_r - v_0)/v_0$ . The content of precipitate and resin and the specific viscosity in the oxidized motor mineral oils AS-6, AS-9.5 and DS-11, without additives and with various additives, were then determined. The results showed that the specific viscosity is a useful index of the accumulation of resins in the oil during oxidation. The addition of thiophosphate additives (AN-22, V-353, DF-11, DF-1, Orobis-267, Monto-493) to the oil increased the precipitate formation, and in most cases also decreased the specific viscosity. Detergent additives containing Ca and Ba decreased resin formation in the oils. A. Ravikovich

SUB CODE: FP, MT

ENCL: 00

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L 9102-65 EWT(m)/EPF(c)/T/EWP(b) Pr-4 ASD(m)-3/FETR/ASD(p)-3/SSD/  
AFTC(p) JD/WB/DJ

ACCESSION NR: AT3001319

S/2933/63/005/000/0231/0235

AUTHOR: Ramayya, K. S.; R. Kh. Sil's; M. S. Borovaya; N. G. Puchkov

B

TITLE: A method for determining the corrosiveness of oils from sulfur-containing crude  
oils and the anticorrosive effect of additives //SOURCE: AN SSSR. Bashkirskiy filial. Khimiya seraorganicheskikh soyedineniy,  
soderzhashchikhsya v neftyakh i nefteproduktakh, v. 5, 1963, 231-235.TOPIC TAGS: lubricating oil, crude oil, sulfurous crude, corrosion, oil additive,  
corrosion prevention, alkylphenol, alkylsalicylate, copper stearate, copper naphthenate,  
hydrorefiningABSTRACT: Investigations by the standard methods give excessively low values for oil  
corrosiveness, and the testing conditions are too mild for the differential evaluation of  
the anticorrosive effectiveness of currently used additives. The corrosiveness of motor  
oils obtained from sulfur-containing crudes was therefore investigated using experimental  
conditions which were chosen in consideration of the fact that in an engine, the processes  
of oxidation are catalyzed by the metal surface of the machine parts as well as by the  
abrasion products, various highly dispersed metal particles suspended in the oil, and by  
organic metal salts dissolved or dispersed in the oil. Thus, in order to catalyze the

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L 9102-65

ACCESSION NR: AT3001319

2

oxidative reactions during the 25-hour experiment, copper stearate or naphthenate were added in the amount of 0.02% by weight. The results of tests with and without a catalyst at 140°C on five selectively refined oil samples and five hydrorefined oil samples obtained from sulfur-containing crude oils showed that the corrosion of lead in oils from sulfurous crudes was increased considerably under the influence of a catalyst. A study of additives under similarly extreme experimental conditions showed that motor oils with almost no corrosiveness can be obtained by the combination of alkylphenol additives with alkylsalicylates (up to 10% and higher) or by additives consisting of cleansing and inhibiting components. The effect of barium and calcium sulfonates on lead corrosion in different oils is plotted against time for different additive concentrations, and the advantages of sulfonate additives over others with respect to their stabilizing and anticorrosive effects are shown. The corrosion factor obtained by the method proposed in this paper indirectly

has: 3 figures and 2 tables.

Card

2/3

L 9102-65  
ACCESSION NR: AT3001319

ASSOCIATION: Tsentral'nyy nauchno-issledovatel'skiy avtomobil'nyy i avtomotornyiy  
institut (Central Scientific Research Institute for Automobiles and Automotive Engines);  
issledovatel'skiy institut po pererabotke nafti i gaza i polucheniyu  
2

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550610019-3

Petroleum and Gas and for the Preparation or Synthesis of

SUBMITTED: 00

ENCL: 00

SUB CODE: FP

NO REF Sov: 006

OTHER: 000

3/3.

Card

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550610019-3"

137-58-2-2908

Translation from Referativnyy zhurnal, Metallurgiya, 1958, Nr 2, p 100 (USSR)

AUTHORS Sil'tsova, M. A., Slepova, Ye. Z.

TITLE: New Die Lubricants for the Deep Drawing and Superdeep Drawing  
of Sheet-steel Parts (Novyye shtampovyye smazki dlya glubokoy  
i osobo glubokoy vytyazhki detaley iz listovoy stali)

PERIODICAL: Tekhnol. avtomobilestroyeniya, 1957, Nr 3, pp 37-45

ABSTRACT: Consideration is given to the advantages and disadvantages of  
the new-type lubricants being used in deep drawing, to the technical  
and economic aspects of their introduction into industry, and  
to the technology of manufacturing lubricants based on calcium  
soap and gypsum. Results of shop testing of the new lubricants  
are included.

Ye. L.  
1. Dies--Lubrication--Test results    2. Lubricants--Applications

Card 1/1

**AUTHOR:** Solomov, E. **DATE:** Sov/24-38-36/39  
**TITLE:** Application of Technological Lubricants and Special  
 Oils during Shaping of Metals by Applying Pressure  
 (Опыт применения технологических смазок и специальных  
 масел при горячем ковке металлов в процессе  
 формования). **CONFERENCE:** Conference at the Institute for Mechanical Engineering  
 of the Ac.Sc. USSR (Совещание в Институте машино-  
 строения Академии наук СССР)

**JOURNAL:** Izvestiya Akademii Nauk SSSR, Otdeleniye Zemnoecheistva  
 SSSR, 1958, № 1, p 155 (УДК)  
**ABSTRACT:** The conference was held in December, 1957. The following  
 papers were read: "General Relations and the Mechanics of  
 Operation of Lubricants During Shaping of Metals" by  
 Aplikativ, Preusse by J. I. Lichtenstein, G. F. Vayler  
 (Лихтенштейн, Вайлер) - Institute of  
 Technical Chemistry of the Ac.Sc.USSR; "Application of  
 Principles of the Hydrodynamic Theory to the Process of  
 Cold Stamping" by T. I. Tschekalov (Чекалов); "Hot Stamping  
 of Metal and Particularity for Very Deep  
 Drawing or Components made of Sheet Steel" by M.A.  
 Kholodenko (Холоденко); "Hot Stamping of Aluminum  
 Plates" by Gor'kovsky arrested (Гор'ковский); "Fabricate  
 Various Alloys" by Th.P. Daryakov (Дарыков);

**CASES:** Application of Technological Lubricants and Special Coatings  
 During Shaping of Metals by Applying Pressure  
 Conference at the Institute for Mechanical Engineering of the  
 Ac.Sc. USSR

"New Lubricants for Sheet Drawing" by T. I. Tschekalov  
 (Чекалов); "Investigation of Technological  
 Lubricants Applied for Hot Stamping of Metal Components"  
 by T. I. Tschekalov (Чекалов); "Investigation of Metal Components  
 by High Pressure" by T. I. Tschekalov (Чекалов); "Investigation of Metal Components  
 by High Pressure" by T. I. Tschekalov (Чекалов); "Investigation and Testing of Certain  
 Technological Lubricants and Methods of Applying These  
 in the Case of Presses During Hot Stamping of Aluminum  
 Plates" by T. I. Tschekalov (Чекалов); "Lubricants Used in  
 Stamping of Metal by Pressure by G. I. Zhuravskiy  
 (Журавский) - Aviation Works (Авиац. зав.)  
 Given in the individual papers above the increasing use  
 of liquid, paste and solid technological lubricants  
 and special coatings in highly efficient processes of  
 shaping metals by applying pressure in the production  
 of complicated components from various heavy and light  
 non-ferrous alloys. The undertakings of the chemical  
 and oil industries have so far not organized the  
 production of the appropriate lubricants and the  
 development industry does not produce lubricants for  
 determining the main parameters of these lubricants.  
 As far as investigations by individual institutes of the  
 Academy of Sciences on technological lubricants have not been  
 carried out on a sufficiently large scale and have not  
 been adequately co-ordinated. The same applies to  
 other institutes.

"Institut Fiziko Khimii AM SSSR -  
 Institute of Physics and Chemistry of the Ac.Sc. USSR -  
 reported on work in the field of lubricants for cold  
 stamping. Since the results of this work is little known,  
 it was proposed to devote to it a  
 specialized seminar at the Institute of Mechanical Engineering  
 of the Ac.Sc. USSR.  
 Organization was urged of the research work in the use  
 of lubricants for shaping or metals by pressure and this

work should be undertaken by the Laboratory of obrabotki  
 (processing) metal by pressure of the Institute of  
 Technology of Metallurgy of Metals by Pressure of the  
 Institute of Mechanical Engineering of the Ac.Sc. USSR  
 (Институт технологии обработки металлов давлением и  
 машиностроения Академии наук СССР).  
 The importance of this work is pointed out of putting onto the  
 market of lubricants for determining the main parameters  
 of these lubricants and also of automatic equipment for carrying  
 out technological lubricants. It is necessary to carry  
 out standard specifications. There should also be  
 research and also methods of analysis of  
 lubricants and to lubricate the manufacture of  
 standard technological lubricants. All  
 technological lubricants, especially those used in  
 shaping or metals by applying pressure used in  
 various industries should be published.

## PAGE 1 BOOK INFORMATION

SERIAL

Akademiya na Nauk SSSR. Institut mashinostroyeniya

Tekhnologicheskij snarodniy obzor obnarubil metallovedenija (Industrial Lubri-

cants Used in Processing of Metals) Moscow, Naukova Dumka, 1960. 96 p. 5,000

copies printed.

Sponsoring Agency: Institut mashinostroyeniya Akademii nauk SSSR.

Ed.: A. V. Kostylev, Candidate of Technical Sciences; Ed. of Publishing House:

O. P. Rukoveshchikov, Ph.D., I. P. Gerasimov, Managing Ed. for Literature on

Heavy Machine Building; S. Yu. Golovits, Engineer.

PURPOSE: This collection of articles is intended for scientific and technical

personnel, production engineers, and students in schools of higher technical

education and universities.

CONTENTS: The book contains articles analyzing the research on industrial

lubricants used in processing of metals conducted by various institutes and

plant laboratories. It is stated that these lubricants improve the metal-

forming process and increase the wear resistance of tools (dies), thereby

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increasing the quantity and quality of production. Also included are papers discussed at an All-Union convention on Industrial Lubricants held under the auspices of the Ministry of Technological Universities. Institute of Machine Technology of USSR (Commission for Machine-Building Processes of the Institute of Science of Machines, AI UTM). No personalities are mentioned. References accompany some articles and are all given.

## TABLE OF CONTENTS:

Kostylev, Yu. I. Application of Principles of the Hydrodynamic Lubrication Theory to Stamping Processes	1
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Berger, Yu. P. Friction and Lubrication in Stamping Sheet Steel and Alloys	26

Card 2/2

## Industrial Lubricants Used (Cont.)

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Sil'tsova, M. A. Industrial Lubricants Used in Deep Drawing of Parts From Steel Sheets (Experience of the Gor'kovskiy Avtomobil'nyy Zavod [Gor'kiy Automobile Plant])	37
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Abs Jour : Rof Zhur - Biol., No 15, 1958, No. 70190

Author : Siluyanova, V. A.

Inat : 1st Moscow Medical Instituto

Title : The Influence of the Central Nervous System on the Venous Pressure in Hypertension and other Cardiovascular Diseases

Orig Pub : Tr. 1-go Mosk. med. in-ta, 1956, Vol 1, 54-67

Abstract : Measurements were made of venous pressure (VP) in 56 healthy people, 17 patients in stage I, 25 in stage II, and 16 in stage III of hypertension (Myasnikov classification). In the healthy subjects and in patients in stage I, the VP was 70-116 mm water; it was elevated in some of the patients in stage II; in stage III, in the presence of coronary insufficiency, there was marked venous hypertension. However, in the cerebral form of hypertension (stage III), the VP was either normal or low. Emotional

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1. A project in which you have been involved  
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2. What do you know about it?

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